

IN THE CLAIMS ADD

46. A sanitizing device, comprising:

- a sanitizing component for directly sanitizing a surface, wherein the sanitizing component includes a corona cell capable of acting as a bactericidal agent upon contact with the surface or the surrounding environment; and
- a housing for retaining the sanitizing component.

REMARKS

The Examiner has rejected the application on various bases. In response, Applicant has amended the application so as to clarify the invention for the Examiner. Applicant submits that the application is now in condition for allowance.

The Examiner has rejected claims 1-18, 21, 23-39 and 43-45 under 35 U.S.C. § 102(b) based on the contention that those claims, as written, are anticipated by Weinberg, et al, U.S. Patent No. 5,207,877 (Weinberg '877). Additionally, the Examiner has rejected claims 19, 20, 22 and 40-42 under 25 U.S.C. § 103(a) based on the contention that those claims are unpatentable over Weinberg '877 in view of Stein et al, U.S. Patent No. 4,617,157. Applicant respectfully traverses the Examiner's rejections, and herein contends that the application is now in condition for allowance.

With respect to the Examiner's rejections, Weinberg '877 discloses several methods for the purification of air. These methods generally include the steps of (a) providing a scrubber zone in combination with an electrolyzer zone, and an aqueous scrubber liquid-electrolyte circulating between the electrolyzer and scrubber zones, (b) where the polluted air is cleaned by

dissolving pollutants into the scrubber liquid-electrolyte and impressing a voltage across the electrochemical cell. Thus, the cleaning process requires the pollutants to first be dissolved into the electrolyte, and then requires exposure to the electrochemical cell.

The requirement of dissolving the contaminants in the electrolyte is supported throughout the specification of the cited patent. For example, the cited reference requires that “in all embodiments of the invention, contaminated air is treated in a wet scrubber zone to clean and separate virtually all chemical and biological pollutants from incoming air.” (Col. 9, Lines 24-28). To aid in this separation, the application discloses the inclusion of metal complexing ions for complexing, solubilizing, and hence removing pollutants from air. (Col. 11, Lines 37-41). Similarly, the patent teaches that the inclusion of a pollutant solubilizing agent to the scrubber liquid-electrolyte enhances performance by allowing hydrocarbons and other organic contaminants to be more easily solubilized. (Col 12, Lines 51-54).

Based on these disclosures, the cited invention teaches and requires a method whereby the unwanted contaminants are absorbed into electrolyte before they can be decomposed. Further, the cited application teaches a device which sanitizes by dissolving the unwanted contaminants in a liquid electrolyte, and exposing those dissolved contaminants to an electrical charge. The device therefore requires the dissolving process, and with that requirement teaches a device that is only capable of sanitizing dissolved components.

Those teachings are directly contrary to the teachings of Applicant's invention. The present application discloses a sanitizing device, which may comprise any of an electrochemical, chemical and/or corona cell, which is capable of decomposing contaminants on direct contact. (p. 13, 14, and 15). Further, the present application can do so without the need to dissolve the contaminants, and without the need to include a liquid electrolyte in the invention.

For explanatory purposes only, Applicant has amended claims 1, 23 and 44 to further clarify that the invention operates to directly sanitize contaminants upon contact, i.e. Applicant's invention can sanitize without the need to dissolve contaminants in a liquid electrolyte. In addition to the modification of claims 1, 23 and 44, Applicant has additionally added Claim 46 to highlight an additional advantageous embodiment of the disclosed invention. Specifically, claim 46 was added to show the beneficial application of the ozone-evolving corona cell embodiment, discussed on p. 14 of the application in regards to Fig. 7, to a surface. This embodiment of the invention offers numerous advantages. Such a device can be used beneficially for application to the surface of a patient as a bactericidal agent, and for aiding in the healing of wounds.

For example, the surface application of a corona cell can be used with diabetes patients in footwear. The onset of diabetes slows the blood flow to the extremities, reducing the sensation within the foot area. When a diabetes sufferer has a cut or other sore on their feet, the cut or sore is less likely to be detected. Since shoes and other footwear are a breeding ground for bacteria, minor cuts and abrasions can become infected easily if not noticed in time and taken care of. Therefore, the presence of a surface cleaning agent, such as Applicant's invention, ensures a relatively bacteria-free environment, aiding in the reduction of foot infections for diabetes sufferers.

The above examples show the efficacy and utility of the now-highlighted embodiment of Applicant's invention. The examples also help to illustrate the differences between the current invention, and the Weinberg '877 patent. Since the Weinberg '877 patent does not teach a device capable of directly sanitizing a surface, liquid, gas, and/or associated surrounding environment, but instead requires a method that dissolves contaminants in a liquid electrolyte, Applicant submits that the present claims define over the Weinberg '877 reference. Additionally,

the Weinberg '877 reference does not even suggest a direct application of a sanitizing device, as to do so would teach away from the very object of the '877 reference.

Therefore, Applicant contends that the claims are now in condition for allowance. As the remaining claims depend from now-allowable claims 1, 23, or 44, Applicant contends that the Examiner's rejection of those claims is now moot.

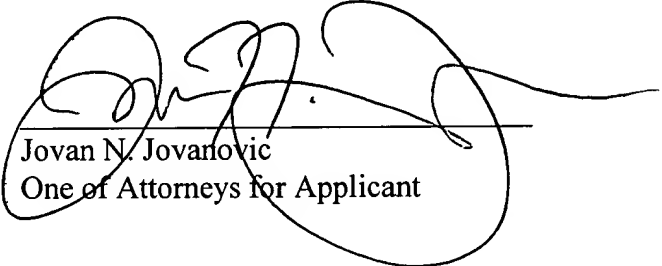
In light of the foregoing, Applicant submits that the application should be in condition for allowance. Accordingly, reconsideration is respectfully requested.

Should anything further be required, a telephone call to the undersigned, at (312) 226-1818, is respectfully invited.

Respectfully submitted,

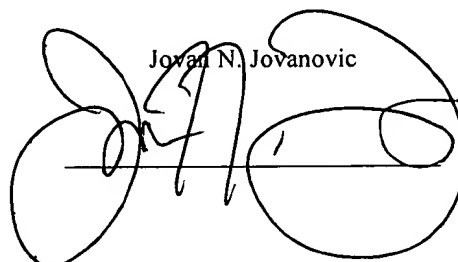
FACTOR & PARTNERS, LLC

Dated: October 1, 2001


Jovan N. Jovanovic
One of Attorneys for Applicant

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on October 1, 2001

Jovan N. Jovanovic


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AMENDED CLAIMS WITH MARKINGS TO SHOW CHANGES

1. (Once Amended) A sanitizing device, comprising:

- a sanitizing component for directly sanitizing a surface, liquid, gas, and/or associated surrounding environment, wherein the sanitizing component includes an electrochemical, chemical and/or corona cell capable of sanitizing upon contact with a surface, liquid, gas and/or associated surrounding environment; and
- a housing for retaining the sanitizing component.

23. (Once Amended) A multi-layer composite sanitizing device, comprising:

- a particulate filtering component capable of substantially trapping particulates thereon;
- a sanitizing component for directly sanitizing a surface, liquid, gas, and/or associated surrounding environment, wherein the sanitizing component includes an electrochemical, chemical and/or corona cell capable of sanitizing upon contact with a surface, liquid, gas and/or associated surrounding environment; and
- a housing for retaining the particulate filtering component and the sanitizing component.

44. (Once Amended) A process for sanitizing a liquid, gas or other matter, comprising the steps of:

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- providing a sanitizing component such as an electrochemical, chemical, and/or corona cell retained within a housing;

- passing liquid, gas, or other matter over the surface of the sanitizing component;
- directly contacting the sanitizing component with the liquid, gas, or other matter; and
- substantially sanitizing the liquid, gas, or other matter.